REMARKS

By the foregoing amendment claim 1 has been amended to recite a valve assembly movable in a direction along a longitudinal axis of a co-operating valve seat. This amendment is supported by Figure 1, and page 4, lines 8-27 of the specification. It is respectfully requested that this amendment be entered as it does not constitute new matter or require a new search.

Claims 1 and 3 have been rejected under 35 U.S.C. 102(b) as anticipated by U.S. Patent No. 3,891,000 to Melnick. Before discussing the differences and deficiencies of this reference, a brief review of amended independent claim 1 is in order.

Amended independent claim 1 specifies a valve comprising a housing having an inlet and spaced therefrom an outlet, a passageway extending between the inlet and outlet, and means located in the passageway for controlling the flow of a fluid between the inlet and the outlet, the means including a valve assembly movable in a direction along a longitudinal axis of a co-operating valve seat between a first open position spaced from the co-operating valve seat and a second closed position at which the valve assembly sealingly engages the valve seat, in which magnetic means is provided for biasing the valve assembly towards the second closed position; wherein at least a portion of the valve assembly is in the form of or incorporates a permanent magnet and a further magnet is located adjacent the valve seat, and said valve assembly is configured to transition between said second closed position and said first open position based on a pressure differential arising from said fluid between said inlet and said outlet.

There is no teaching or suggestion in Melnick of a valve assembly movable in a direction along a longitudinal axis of a co-operating valve seat as in the claimed invention. Rather, Melnick is directed to a flap valve assembly including a hinge portion 35, which allows closure member 29 to rotate away from the valve seat (col. 2, lines 51-64). Accordingly, Melnick fails to teach or suggest the claimed invention.

Claims 1, 3, 4 and 6 have been rejected under 35 U.S.C. 103(a) as unpatentable over U.s. Patent No. 3,026,903 to Roach in view of U.S. Patent No. 2,949,931 to Ruppright. More particularly, the Examiner admits that the patent to Roach fails to disclose a further magnet adjacent to the valve seat.

Roach discloses a magnetic check valve including a cylindrical bore coaxial with the valve seat, and permanent magnets fully encased within the walls of the cylinder and extending longitudinally thereof. A pair of longitudual guide lands are provided for guiding the valve 45 longitudinally and for centering the valve with respect to the base of the seat ring (col. 4, lines 27-31). At col. 4, lines 50-55, Roach teaches

"[a]lso by concentrating magnetic force along one side of the cage [cylinder], as described, not only will the valve be held to a path of movement along the guide lands, but the magnetic attraction exerted in the valve will provide resistance to rotation of the ball which in most instances greatly reduces erosion of the valve element."

Accordingly, Roach teaches the desirability of a specific arrangement for generating a magnetic field to attract the valve to a co-operating valve seat where the magnets are arranged along the walls of a magnetic cage. There is no reason why one skilled in the art would be motivated to modify Roach by placing a further magnet

adjacent the valve seat, especially in view of Roach's teaching that possible rotation of the valve which may lead to erosion, is to be avoided.

Indeed, Roach teaches the opposite, extending the magnetic field into the lower end of the seat rings by installing a pair of magnetically permeable inserts into the lower end of seat ring 23 (col. 5, lines 29-33).

Further, contrary to the Examiner's contention there is no reason why one skilled in the art would be motivated to combine Ruppright which teaches a valve system which provides angular disposition of a valve disc relative to the axial flow path of the fluid (col. 3. lines 45-49), with Roach which teaches avoidance of rotation of the valve to avoid erosion. The law is well established that a prima facie case of obviousness cannot be established by the combining references which teach away from their combination.

Claims 1 and 5 have been rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Roach and Ruppright and further in view of U.S. Patent No. 5,515,223 to Grittmann et al. For the reasons discussed above, there is no reason why one skilled in the art reading Roach, Ruppright and Grittmann would be motivated to provide a further magnet as in the claimed invention. Moreover, there is no teaching or suggestion in these references, alone or in combination, to do so.

In this regard it is noted that the contention that it would have been obvious to one of ordinary skill in the art to provide a further magnet adjacent to the valve seat of Grittman et al. made of magnetic material, is directly contradicted by the fact it was not obvious to one of ordinary skill in the art, namely Grittmann et al., to do

so; even though Grittmann et al. was filed more than thirty years later than the Roach and Ruppright references.

Claims 7-11 have been found to contain allowable subject matter.

In view of the foregoing claims 1 and 3-11, all the pending claims, are in condition for allowance.

Prompt and favorable action is respectfully requested.

The Commissioner is authorized to charge any required fees, including any extension and/or excess claim fees, any additional fees, or credit any overpayment, to Goodwin Procter LLP Deposit Account No. 06-0923.

Respectfully submitted,

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